Darcy L. Endo-Omoto
Vice President
Government & Community Affairs

February 16, 2010

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PUBLIC UTILITIES COMMISSION

The Honorable Chairman and Members of the
Hawaii Public Utilities Commission
465 South King Street
Kekuanaoa Building, 1st Floor
Honolulu, Hawaii 96813

Subject: Docket No. 2008-0273
Feed-In Tariffs Investigation
Hawaiian Electric Companies' Information Requests

Pursuant to the Commission's October 29, 2009 Order Setting Schedule[1] in the above subject proceeding, attached are Hawaiian Electric Company, Inc. ("Hawaiian Electric"), Hawaii Electric Light Company, Inc. ("HELCO"), Maui Electric Company, Limited's ("MECO") (collectively, the "Hawaiian Electric Companies") information requests regarding the following Parties' Reliability Standards and Queuing and Interconnection Procedures:

- Blue Planet Foundation
- Zero Emissions Leasing and Clean Energy Maui

Sincerely,

for Darcy L. Endo-Omoto
Vice President
Hawaiian Electric Company, Inc.
Hawaii Electric Light Company, Inc.
Maui Electric Company, Limited

Attachments

c: Distribution List

[1] See February 3, 2010 letter from the Hawaiian Electric Companies requesting an extension of time for the procedural steps and scheduled deadlines relating to the filing of the Reliability Standards. (Information Requests on Reliability Standards and Queuing and Interconnection Procedures are due on February 16, 2010 instead of February 11, 2010).

HECO Companies'
Information Requests ("IRs") on Reliability Standards
to
Blue Planet

HECO/BluePlanet-IR-1 Ref: Page 1, second paragraph.

Please explain in detail how Blue Planet's proposed Reliability Principles set forth at page 8 will directly result in a dramatic acceleration of "renewable energy acquisition in Hawaii"?

HECO/BluePlanet-IR-2 Ref: Page 2, first incomplete paragraph.

Please explain in detail the modifications to the NERC bulk electric system reliability standards that "may be necessary and appropriate for Hawaii island grids"? Please provide copies of any analyses or studies which Blue Planet has conducted or commissioned to indicate what these proposed modifications are?

HECO/BluePlanet-IR-3 Ref: Page 2, first incomplete paragraph.

Is it Blue Planet's position that the Hawaiian Electric Company grids are not presently operated pursuant to reliability standards and principles appropriate for the Hawaii island grids? If yes, please provide a detailed explanation as to how Blue Planet reached his conclusion?

HECO/Blue Planet -IR-4 Ref: Page 2

Please clarify the statement, "interconnection and curtailment of renewable energy Hawaii should be governed by formal bulk electric system reliability standards based upon existing North America Electric Reliability Corporation bulk electric system reliability standards, modified as may be necessary and appropriate for Hawaii island grids."

a) Is it Blue Planet's understanding that "bulk", as used in the above sentence, refers to transmission systems of facilities at 100 kV and higher? If so, please elaborate.
b) Is it Blue Planet's intent that all renewable resources be connected at the transmission level (i.e., the bulk electric system) and not the distribution level? If so, please elaborate.

HECO/BluePlanet-IR-5 Ref: Page 3, first complete paragraph.

a) Please describe in detail the "operational challenges in Hawaii" that may "require modification of NERC reliability standards"? Please provide any analyses or studies of these "operational challenges" which Blue Planet has conducted or commissioned.
b) Please describe in detail any differences in the "basic physical and operational characteristics" of each Hawaiian Electric island grid and the electric grid of "North America"?
c) Please describe in detail Blue Planet's understanding of the processes and procedures used by the Hawaiian Electric Utilities to "maintain adequate voltage, balance supply and demand in real time, and maintain system reliability"?
d) Please describe in detail how the processes and procedures identified in your response to IR-10, part c, differ from those utilized for the North American grid.

HECO Companies'
Information Requests ("IRs") on Reliability Standards
to
Blue Planet

HECO/Blue Planet-IR-6 Ref: Page 3, second paragraph

Please clarify what is meant by the statement "the basic physical and operational characteristics of electric grids in Hawaii and North America are essentially identical". Specifically, please clarify this statement as it relates to maintaining adequate voltage, balancing supply and demand and maintaining system stability for Hawaii's islanded grids and the North America market based grids.

HECO/BluePlanet-IR-7 Ref: Page 3, second paragraph.

a) Please describe in detail the New Zealand electric grid.
b) Please describe in detail the "limited interconnection" between the island grids and how that interconnection may be utilized to balance overall system supply and demand.
c) Please describe in detail any differences between the New Zealand reliability standards and the NERC reliability standards governing North America.

HECO/BluePlanet-IR-8 Ref: Page 5, first partial paragraph.

Please provide any analyses or studies conducted or commissioned by Blue Planet which indicate that the principles and standards proposed by the Hawaiian Electric Companies in this docket are not designed to preserve system reliability and power quality consistent with the Commission's September 25, 2009 Decision and Order?

HECO/BluePlanet-IR-9 Ref: Page 5, last paragraph.

Please describe in detail how Blue Planet's proposed reliability principles will "establish when additional renewable energy can or cannot be added on an island or region therein without markedly increasing curtailment, either for existing or new renewable projects"?

HECO/Blue Planet -IR-10 Ref: Page 9

Please explain the analytical basis by which the 2.5% limit of the 2008 system peak demand for the first full year of FIT and 5.0% limit for the 2nd year of FIT were derived.

a) Does the analysis establish that the increase to such levels on HECO, MECO and HELCO will not result in a violation of current system reliability principles/standards in operations today?
b) How do these limits project for the long term beyond the 2nd year of the FIT program?

HECO/BluePlanet-IR-11 Ref: Page 9, second full paragraph.

Please describe in detail how the reliability principles proposed by Blue Planet will "provide greater transparency and predictability with respect to reliability issues for developers"?

HECO Companies'
Information Requests ("IRs") on Reliability Standards
to
Blue Planet

HECO/Blue Planet -IR-12 Ref: Page 11

Several recommendations are made to pursue minimizing operations of fossil generation by developing ancillary services products and real time spot pricing mechanisms to provide market signals similar to mainland market connected grids. For small, islanded systems with a limited infrastructure and cost base, please discuss realistic cost and timing associated with pursuing such strategies.

HECO Companies'
Information Requests ("IRs")
to
Zero Emissions Leasing LLC ("ZEL") and Clean Energy Maui ("CEM")

Queuing and Interconnection Procedures:

HECO/ZELCEM-IR-1 Ref: Appendix II, Item (5) Application Fee.

The proposed queuing and interconnection procedures specify a period of twenty (20) consecutive business days for the Company to receive Applications (the "Application Period").

Please provide the following:

a) Please explain the purpose of limiting an "Application Period" to twenty consecutive business days.
b) Would the non-refundable application fee be required for all applications received in the 20 day period?
c) Should the "Application Period" be expanded if the aggregated cap has not been met or exceeded? Please explain.
d) Please clarify if it is intended for the $5,000 non-refundable application fee to be applied to all Tiers.
e) How did ZEMCEL determine the basis for the $5,000 application fee amount?

HECO/ZELCEM-IR-2 Ref: Appendix II, Item (4) Proof of Site Control

Please explain the rationale that applicants are only expected to demonstrate that there is sufficient land area equal to at least 50% of that required to support the size and type of Renewable Energy Generating Facility. Why not 100%?

HECO/ZELCEM-IR-3 Ref: Appendix II, Item (6) Initial Deposit

On page 3, item (6) states:

"An initial deposit of $10,000 (the "Initial Deposit") applicable to the cost of performing any interconnection requirements study ("IRS") required under the FIT Reliability Standards set forth in Appendix III to this Schedule FIT in connection with the renewable Energy Generating Facility;"

Please provide the following:

a) Please confirm if it is intended that the initial deposit of $10,000 applicable to the cost of performing an interconnection requirements study is to be provided by an applicant when submitting an application for the FIT program.
b) Does the same initial deposit apply to applicants in all Tiers?
c) Would a $10,000 deposit pose a hindrance for small renewable energy generator projects? Please explain.
d) Would Applications for a renewable energy generation facility that would not need an IRS be required to pay the $10,000 deposit? Please explain.
e) What is the recommended form of submittal for this Deposit?

HECO Companies'
Information Requests ("IRs")
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HECO/ZELCEM-IR-4 Ref: Appendix II, last Paragraph, page 12.

a) Please explain what defines a "complete and valid" application.
b) Please define under what conditions you would classify an application as valid.

HECO/ZELCEM-IR-5 Ref: Appendix II, last paragraph, Page 12.
Is the aggregate cap of 0.25% of 2008 peak demand for projects less than 20 kw intended to be the cap for all projects of this size for the first two-year FIT period?

HECO/ZELCEM -IR-6 Ref. Appendix II, 1st and 4th paragraphs, Page 13.

a) Has ZELCEM received any input from potential FIT applicants and/or FIT docket parties indicating a preference for a random lottery process to be utilized when allocating space in the queue is oversubscribed?
b) Please explain the basis for ZELCEM's preference for a random lottery?
c) Does ZELCEM believe that a random lottery process is appropriate for selecting projects for the Tier 3 queue?

HECO/ZELCEM-IR-7 Ref. Appendix II, 1st paragraph, page 13, last sentence.

a) Please explain in more detail the meaning of the concept of the order for processing applications as stated in the last sentence of paragraph 1 on page 13.
b) Is this suggestion akin to a "first come first serve" process? Please explain.

HECO/ZELCEM-IR-8 Ref. Appendix II, 3rd paragraph, page 13.
Please confirm that under ZELCEM's proposal, if an applicant is not selected via the random lottery process in any Tier, the applicant will not be refunded its $5,000 application fee.

HECO/ZELCEM-IR-9 Ref: Appendix II, 3rd paragraph, Page 13.
The proposed queuing and interconnection procedures specify an aggregate cap of .25% of the 2008 peak system demand for systems less than 20kW and 4.75% of the 2008 peak system demand for systems greater than or equal to 20kW.
Please provide the following:
a) Would the differences between the aggregate caps for systems less than 20kW and greater than or equal to 20kW put Applications for systems less than 20kW at a disadvantage? Please explain.
b) Is the aggregate cap of 4.75% of 2008 peak demand for projects of 20 kw or more intended to apply to only Tier 2 projects or is it also intended to include Tier 3 sized projects?
c) If the answer to the above is only for Tier 2 projects, what cap is proposed for Tier 3 projects?

HECO Companies'
Information Requests ("IRs")
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HECO/ZELCEM-IR-10 Ref: Appendix II, Pages 13-14

The proposed queuing and interconnection procedures describe a random lottery to specify the order in which Applications continue to be processed under the queuing procedure. Please provide the following:

a) Would the use of a random lottery create a disincentive for Applications? Please explain.
b) Would the use of the date and time an Application was submitted be an appropriate measure in determining an Application's order in the queue? Please explain.
c) Does the random lottery process occur at the application stage or after the company determines if an IRS is required?
d) If the random lottery process occurs at the application stage, is it possible that projects which do not require an IRS could be "crowded out" of the queue by projects which require an IRS? Please explain.

HECO/ZELCEM -IR-11 Ref. Appendix II, IRS Deposits, Page 14.

a) Under ZEMCEM's proposal, what happens if the estimate for the IRS exceeds $50,000?
b) Would the amount of the Additional Deposit be increased?

HECO/ZELCEM-IR-12 Ref. Appendix II, Substitute for Milestone, Page 14.

a) Are the Deposits or Letter of Credit amounts cumulative?
b) Will the applicant be required to provide a deposit for each milestone in the amount of $250 per kW?
c) How was the $250 per kW figure determined?

HECO/ZELCEM -IR-13 Ref. Appendix II, Milestones, Page 15.

a) Are these milestones intended to apply to projects of all Tiers?
b) What is the basis for requiring only two of the five milestones to be met before obligating the Utility to execute the Standard Schedule FIT Agreement and Interconnection Agreement?
c) Re: "Necessary Permits" please explain what metrics should be utilized to determine if a project is "beginning to proceed through approval process" for each of the permits ZELCEM anticipates would be required?
d) Re: "Regulatory Approval" please explain what facility approval would be sought from the Hawaii Public Utilities Commission and what the procedural process for seeking that approval would be?

HECO Companies'
Information Requests ("IRs")
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Zero Emissions Leasing LLC ("ZEL") and Clean Energy Maui ("CEM")

HECO/ZELCEM-IR-14 Ref. Appendix II, Termination From Queuing Process, Page 15.
In Item (2), please clarify what in meant by failure to pay the company for costs of network upgrades and interconnection facilities required within 6 months of receipt of an invoice from the Company. Is this intended to apply prior to the initiation of any such work by the Company?

HECO/ZELCEM-IR-15 Ref. Appendix II, Force Majeure, Page 15-16
Is it ZELCEM's intent to limit the definition of force majeure only to include the events listed on pages 15-16?

Reliability Standards:

HECO/ZELCEM-IR-16 Ref: page 2
As noted, part one of ZEL/CEM proposed reliability standards are "essentially identical" to the Rule 14H interconnection requirements. Part two is focused on curtailment of non-renewable energy to accommodate such additional renewable energy.

a) Please clarify that what is proposed in Appendix III is a one for one replacement of a non-renewable energy generating facility (kWh) for an equivalent kWh of generation from one of four listed FIT eligible renewable generating facility.
b) If so, please explain how system reliability requirements such as maintaining system stability, inertia, firm and emergency reserve levels, peaking capability and ramping will be supplied for the system under this curtailment plan.
c) What additional cost impacts will need to be considered with such a proposed reliability standard.

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